



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,168	09/19/2003	Fred C. Porter	6978-254/COA	1627

27572 7590 07/21/2004

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 828
BLOOMFIELD HILLS, MI 48303

EXAMINER

HO, HA DINH

ART UNIT	PAPER NUMBER
----------	--------------

3681

DATE MAILED: 07/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/667,168

Applicant(s)

PORTER, FRED C.

Examiner

Ha D. Ho

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2003 and 01 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/19/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is the first Office Action on the merits of Application No. 10/667,168 filed on 09/19/03. Claims 1-27 are currently pending.

Election/Restrictions

2. Applicant's election without traverse of Species 2, Figs. 1, 3 and 4, claims 1-27, in the reply filed on 06/01/04 is acknowledged.
3. No claim is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 06/01/04.

Claim Objections

4. Claims 2-6 are objected to because of the following informalities: in line 1 of each of claims 2-6, the recitation of "The transfer case" should be changed to --The motor vehicle--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

Art Unit: 3681

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Bowen et al. (US 6,464,608).

Regarding claims 1-3 and 5-27, Bowen et al'608 shows a hybrid vehicle comprising:

an engine (12); a transmission (14); a first driveline including a first differential (36) connecting a pair of first wheels (32); a second driveline including a second differential (46) connecting a pair of second wheels (42) (see Fig. 1);

a transfer case (20) (see Fig. 2) including a primary shaft or first output shaft (40), a secondary shaft or second output shaft (50), a reduction gearset (56) having an input (82), an output (88), and an electric motor (22) for selectively driving the input (82);

a mode clutch (62) and a clutch operator (104);

a control system (26, 28, 30) for controlling actuation of the mode clutch and the electric motor, the control system including a controller (30) and sensors (see Fig. 3); and

a transfer unit including a first sprocket (92), a second sprocket (90) fixed to the second output shaft (50), and a power chain (94);

wherein said control system is operable to define an electric operating mode when the electric motor is actuated to drive the second driveline (46) while the first driveline (36) is not driven by the engine (see col. 5, lines 28-51);

wherein a hybrid operating mode is established with the engine delivering drive torque to the first driveline (36) while the electric motor delivers drive torque to the second driveline (46);

wherein the control system permits selection of a two-wheel drive mode, a part-time four-wheel drive mode and an automatic four-wheel drive mode (see col. 3, lines 33-62);

wherein the mode clutch operable in a released mode and an engaged mode (see col. 3, lines 33-62).

Regarding claim 4, the interpretation of the claimed primary driveline is the differential (46) and wheels (42), and the interpretation of the claimed secondary driveline is the differential (36) and wheels (32), wherein the control system is operable to define an engine operating mode when the electric motor (22) is off such that the secondary driveline (36) is not driven (e.g., when the mode clutch 62 is released) while the engine drives the primary driveline (46).

Cited Prior Art

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Bowen'128, Winks'430, and Lunn et al'975 which each shows a four-wheel-drive transmission having a transfer case.

Communication

8. Submission of your response by facsimile transmission is encouraged. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see M.P.E.P. 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check. Responses submitted by facsimile transmission should include a Certificate of Transmission (M.P.E.P. 512). The following is an example of the format the certification might take:

Art Unit: 3681

I hereby certify that this correspondence is being facsimile transmitted to
the Patent and Trademark Office on _____

(Date)

Typed or printed name of person signing this certificate:

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and M.P.E.P. 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Examiner Ho whose telephone number is (703) 305-0738. The examiner can normally be reached on Monday-Friday from 7:30 A.M. to 5:00 P.M. Eastern Standard Time. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Mr. Charles Marmor, can be reached at (703) 308-0830. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2168.

HDH
(703) 305-0738
July 19, 2004


HAHO
PRIMARY EXAMINER

Art Unit 3681

7/19/04